CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ

ISO 9001:2000 CERTIFIED

CQCE/BBMP/NMK/W.No.37/2020-21

Date: 14.09.2020

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Executive Engineer,** RR Nagar Division, BBMP, Bangalore.
Agency	**Sri. N M Krishnamurthy,** Contractor, Bangalore.
Name of Work	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Technical Reference	IS 2386(Part 1) 1963 (RA 2007)
Type of Mix	Dense Graded Bituminous Macadam
Date of Testing	14.09.2020

Result : Flakiness Index = **12.36%**

Elongation Index = **13.65%**

Result : Combined Flakiness & Elongation index **26.01%**

Comments:

→ Maximum allowable Flakiness & Elongation Index for Dense Graded Bituminous Macadam is 30%

Note:

→ This test report should not be reproduced except in full, without written approval of the laboratory

→ The results indicated above are based on the tests carried out on the samples recieved in the laboratory

→ Any Query regarding the report must be reported within 30 days from the date of testing.

Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2008 CERTIFIED

Ref. No.: CQCE/BBMP/NMK/W.No.37/2020-21 Date: 14.09.2020

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Executive Engineer,** RR Nagar Division, BBMP, Bangalore.
Agency	**Sri. N M Krishnamurthy,** Contractor, Bangalore.
Name of Work	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Technical Reference	IS 2386(Part 1) 1963 (RA 2007)
Type of Mix	Dense Graded Bituminous Macadam
Date of Testing	14.09.2020

Result : Flakiness Index = **11.98%**

Elongation Index = **13.25%**

Result : Combined Flakiness & Elongation index **25.23%**

Comments:

→ Maximum allowable Flakiness & Elongation Index for Dense Graded Bituminous Macadam is 30%

Note:

→ This test report should not be reproduced except in full, without written approval of the laboratory

→ The results indicated above are based on the tests carried out on the samples recieved in the laboratory

→ Any Query regarding the report must be reported within 30 days from the date of testing.

Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Ref No: CQCE/BBMP/NMK/W.No.37/2020-21

Date: 14.09.2020

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Executive Engineer,** RR Nagar Division, BBMP, Bangalore.
Agency	**Sri. N M Krishnamurthy,** Contractor, Bangalore.
Name of Work	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Technical Reference	IS 2386(Part 1) 1963 (RA 2007)
Type of Mix	Dense Graded Bituminous Macadam
Date of Testing	14.09.2020

Result : Flakiness Index = **12.12%**

Elongation Index = **13.89%**

Result : Combined Flakiness & Elongation index **26.01%**

Comments:

→ Maximum allowable Flakiness & Elongation Index for Dense Graded Bituminous Macadam is 30%

Note:

→ This test report should not be reproduced except in full, without written approval of the laboratory

→ The results indicated above are based on the tests carried out on the samples recieved in the laboratory

→ Any Query regarding the report must be reported within 30 days from the date of testing.

Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ ISO 9001:2000 CERTIFIED

Lab No: CQCE/BBMP/NMK/W.No.37/2020-21

Specific Gravity And Water Absorption Test

IS: 2386 Part III

Date: 16.09.2020

Client	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency	Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of the Work	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Type of Mix	Dense Graded Bituminous Macadam
Date of Testing	14.09.2020 to 16.09.2020

Sl. No.	Details	Notation	Test Number			Mean Value
			Test 1	Test 2	Test 3	
1	Weight of aggregate suspended in water with the basket	W_1 g	2021	2023	2025	
2	Weight of basket suspended in water	W_2 g	753	753	753	
3	Weight of saturated aggregate in water	$(W_1 - W_2) = W_S$ g	1268	1270	1272	
4	Weight of saturated surface dry aggregate in air	W_3 g	2016	2018	2020	
5	Weight of water equal to the volume of the aggregate	$(W_3 - W_S)$ g	748	748	748	
6	Weight of oven dried aggregate	W_4 g	2009	2010	2011	
7	Specific Gravity	$W_4/(W_3-W_S)$	2.686	2.687	2.689	2.687
8	Apparent Specific gravity	$W_4/(W_4-W_S)$	2.711	2.716	2.721	2.716
9	Water Absorption	$((W_3-W_4)*100)/W_4$	0.35%	0.40%	0.45%	0.40%

Comments:

→ Maximum allowable Aggregate Water absorption value for Dense Graded Bituminous Macadam is 2.0%

Note:

1. This test report should not be reproduced except in full, without written approval of the laboratory
2. The results indicated above are based on the tests carried out on the samples received in the laboratory
3. Any Query regarding the report must be reported within 30 days from the date of testing

Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

IAS-ANZ

CQCE/BBMP/NMK/W.No.37/2020-21 Date: 18.09.2020

BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE GRADED BITUMINOUS MACADAM MIX AASHTO T 164 & AASHTO T 30

Client	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency	Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of the Work	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Date of Testing	18.09.2020

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	477	477.5
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	23	22.50
7. Bitumen content in %	4.60	4.50
8. Average	4.55	

GRADATION AFTER EXTRACTION

SIEVE SIZE	Trail 1				JOBMIX
mm	Weight Retained, gm	Cummulative Weight Retained	%Cummulative Retained	% Passing	Gradation
37.5	0	0	0	100	100
26.5	24.59	24.59	5.2	94.8	90 - 100
19	76.36	100.95	21.2	78.8	71 - 95
13.2	70.84	171.79	36.0	64.0	56 - 80
4.75	85.39	257.18	53.9	46.1	38 - 54
2.360	73.62	330.8	69.4	30.6	28 - 42
0.300	90.45	421.25	88.3	11.7	7 - 21
0.075	26.32	447.57	93.8	6.2	2 - 8

SIEVE SIZE	Trail 2				JOBMIX
mm	Weight Retained, gm	Cummulative Weight Retained	%Cummulative Retained	% Passing	Gradation
37.5	0	0	0	100	100
26.5	25.89	25.89	5.4	94.6	90 - 100
19	82.65	108.54	22.7	77.3	71 - 95
13.2	62.39	170.93	35.8	64.2	56 - 80
4.75	80.45	251.38	52.6	47.4	38 - 54
2.360	60.36	311.74	65.3	34.7	28 - 42
0.300	92.48	404.22	84.7	15.3	7 - 21
0.075	48.98	453.2	94.9	5.1	2 - 8

Note:

- This test report should not be reproduced except in full, without written approval of the laboratory
- The results indicated above are based on the tests carried out on the samples received in the laboratory
- Any Query regarding the report must be reported within 30 days from the date of testing

Asst. Executive Engineer
Yeshwanthpura Sub-Division
BBMP, Bangalore Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ

CQC/ BBMP/NMK/W No 37/2020-21

Date: 19.09.2020

BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE GRADED BITUMINOUS MACADAM MIX AASHTO T 164 & AASHTO T 30

Client	Executive Engineer, RR Nagar Division, BBMP, Bangalore
Agency	Sri. N M Krishnamurthy, Contractor, Bangalore
Name of the Work	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No 37 under PACKAGE-2019-20 RRN-DIV-(II), BBMP, Bangalore
Date of Testing	19.09.2020

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	477	476.5
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g	-	-
5. Weight of Ash, g	23	23.50
6. Weight of Bitumen Extracted, g. (corrected)	4.60	4.70
7. Bitumen content in %	4.65	
8. Average		

GRADATION AFTER EXTRACTION

SIEVE SIZE	Trail 1				JOBMIX
mm	Weight Retained, gm	Cummulative Weight Retained	%Cummulative Retained	% Passing	Gradation
37.5	0	0	0	100	100
26.5	25.26	25.26	5.3	94.7	90 - 100
19	73.68	98.94	20.7	79.3	71 - 95
13.2	71.58	170.52	35.7	64.3	56 - 80
4.75	80.49	251.01	52.6	47.4	38 - 54
2.360	70.65	321.66	67.4	32.6	28 - 42
0.300	92.33	413.99	86.8	13.2	7 - 21
0.075	30.54	444.53	93.2	6.8	2 - 8

SIEVE SIZE	Trail 2				JOBMIX
mm	Weight Retained, gm	Cummulative Weight Retained	%Cummulative Retained	% Passing	Gradation
37.5	0	0	0	100	100
26.5	23.36	23.36	4.9	95.1	90 - 100
19	80.58	103.94	21.8	78.2	71 - 95
13.2	66.35	170.29	35.7	64.3	56 - 80
4.75	80.84	251.13	52.7	47.3	38 - 54
2.360	60.56	311.69	65.4	34.6	28 - 42
0.300	92.89	404.58	84.9	15.1	7 - 21
0.075	42.36	446.94	93.8	6.2	2 - 8

Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Palike

Note:

- This test report should not be reproduced except in full, without written approval of the laboratory
- The results indicated above are based on the tests carried out on the samples received in the laboratory
- Any Query regarding the report must be reported within 30 days from the date of testing

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

No: CQCE/BBMP/NMK/W.No.37/2020-21 Date: 21.09.2020

BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE GRADED BITUMINOUS MACADAM MIX
AASHTO T 164 & AASHTO T 30

Client	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency	Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of the Work	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Date of Testing	21.09.2020

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	477	477.5
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	23	22.50
7. Bitumen content in %	4.60	4.50
8. Average	4.55	

GRADATION AFTER EXTRACTION

SIEVE SIZE	Trail 1				JOBMIX
mm	Weight Retained, gm	Cummulative Weight Retained	%Cummulative Retained	% Passing	Gradation
37.5	0	0	0	100	100
26.5	23.65	23.65	5.0	95.0	90 - 100
19	75.85	99.5	20.9	79.1	71 - 95
13.2	71.23	170.73	35.8	64.2	56 - 80
4.75	86.32	257.05	53.9	46.1	38 - 54
2.360	70.89	327.94	68.8	31.2	28 - 42
0.300	91.48	419.42	87.9	12.1	7 - 21
0.075	25.69	445.11	93.3	6.7	2 - 8

SIEVE SIZE	Trail 2				JOBMIX
mm	Weight Retained, gm	Cummulative Weight Retained	%Cummulative Retained	% Passing	Gradation
37.5	0	0	0	100	100
26.5	26.25	26.25	5.5	94.5	90 - 100
19	80.48	106.73	22.4	77.6	71 - 95
13.2	60.36	167.09	35.0	65.0	56 - 80
4.75	82.89	249.98	52.4	47.6	38 - 54
2.360	63.36	313.34	65.6	34.4	28 - 42
0.300	90.48	403.82	84.6	15.4	7 - 21
0.075	45.68	449.5	94.1	5.9	2 - 8

Asst. Executive Engineer
Yeshwanthpura Sub Division
Bruhat Bangalore Mahanagara Palike

Note:

- This test report should not be reproduced in part without written approval of the laboratory
- The results indicated above are based on the samples received in the laboratory
- Any Query regarding the report must be reported within 30 days from the date of testing

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ

ISO 9001:2000 CERTIFIED

~~CQCE/BBMP/NMK/W.No.37/2020-21~~ Date: 18.09.2020

TEST REPORT ON STABILITY OF MIX

Client	:	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency	:	Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of the work	:	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Source of location	:	Hot mix Plant, Bangalore
Type of Mix	:	Dense Graded Bituminous Macadam
Date of testing	:	18.09.2020

The results of the tests conducted on the Dense Graded Bituminous Macadam sample are as follows:

Sl. No	Description	Test Result 1	Test Result 2	Requirement as per MORTH (Table 500-11)
1	Marshal Stability, Kn	10.36	10.24	9 Kn (min)
2	Marshal flow, mm	2.63	3.54	2 – 4
3	Percent air voids in Mix	3.89	4.15	3 – 5
4	Percent voids in mineral aggregates	12.56	11.87	11 - 13
5	Percent voids filled with Bitumen	70.36	71.84	65 – 75
6	Density, g/cc	2.27	2.26	--

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

CQCE/BBMP/NMK/AW.No.37/2020-21 Date: 19.09.2020

TEST REPORT ON STABILITY OF MIX

Client	:	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency	:	Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of the work	:	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Source of location	:	Hot mix Plant, Bangalore
Type of Mix	:	Dense Graded Bituminous Macadam
Date of testing	:	19.09.2020

The results of the tests conducted on the Dense Graded Bituminous Macadam sample are as follows:

Sl. No	Description	Test Result 1	Test Result 2	Requirement as per MORTH (Table 500-11)
1	Marshal Stability, Kn	10.21	10.05	9 Kn (min)
2	Marshal flow, mm	2.86	3.75	2 – 4
3	Percent air voids in Mix	3.75	4.05	3 – 5
4	Percent voids in mineral aggregates	12.98	11.54	11 - 13
5	Percent voids filled with Bitumen	70.45	71.72	65 – 75
6	Density, g/cc	2.27	2.27	--

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner

VIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ

~~CQCE/BBMP/NMK/W.No.37/2020-21~~ Date: 21.09.2020

TEST REPORT ON STABILITY OF MIX

Client	:	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency	:	Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of the work	:	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Source of location	:	Hot mix Plant, Bangalore
Type of Mix	:	Dense Graded Bituminous Macadam
Date of testing	:	21.09.2020

The results of the tests conducted on the Dense Graded Bituminous Macadam sample are as follows:

Sl. No	Description	Test Result 1	Test Result 2	Requirement as per MORTH (Table 500-11)
1	Marshal Stability, Kn	10.10	10.63	9 Kn (min)
2	Marshal flow, mm	2.74	3.74	2 – 4
3	Percent air voids in Mix	3.82	4.32	3 – 5
4	Percent voids in mineral aggregates	12.98	11.57	11 - 13
5	Percent voids filled with Bitumen	70.42	71.71	65 – 75
6	Density, g/cc	2.26	2.27	--

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ

Ref No: CQCE/BBMP/NMK/W.No.37/2020-21

Date: 22.09.2020

TEST REPORT ON STABILITY OF MIX

Client	:	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency	:	Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of the work	:	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE:-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Source of location	:	Hot mix Plant, Bangalore
Type of Mix	:	Dense Graded Bituminous Macadam
Date of testing	:	22.09.2020

The results of the tests conducted on the Dense Graded Bituminous Macadam sample are as follows:

Sl. No	Description	Test Result 1	Test Result 2	Requirement as per MORTH (Table 500-11)
1	Marshal Stability, Kn	10.05	10.24	9 Kn (min)
2	Marshal flow, mm	3.21	3.42	2 – 4
3	Percent air voids in Mix	3.82	4.10	3 – 5
4	Percent voids in mineral aggregates	12.74	11.54	11 - 13
5	Percent voids filled with Bitumen	70.63	71.71	65 – 75
6	Density, g/cc	2.25	2.26	--

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Palike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

Scanned with CamScanner